RECEIVED

MAR 2 2 2002

TECH CENTER 1600/2900

ENTERED ^{1600}

```
 4 <110> APPLICANT: Turner, C. Alexander Jr.
 5        Donoho, Gregory
 6        Nehls, Michael
 7        Hilbun, Erin
 8        Zambrowicz, Brian
 9        Sands, Arthur T.
11 <120> TITLE OF INVENTION: Novel Human Proteins and Polynucleotides
12        Encoding the Same
14 <130> FILE REFERENCE: LEX-0070-USA
16 <140> CURRENT APPLICATION NUMBER: US/09/691,343
16 <141> CURRENT FILING DATE: 2000-10-18
16 <150> PRIOR APPLICATION NUMBER: US 60/160,106
17 <151> PRIOR FILING DATE: 1999-10-18
19 <150> PRIOR APPLICATION NUMBER: US 60/162,547
20 <151> PRIOR FILING DATE: 1999-10-29
22 <160> NUMBER OF SEQ ID NOS: 7
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 1356
28 <212> TYPE: DNA
29 <213> ORGANISM: homo sapiens
31 <400> SEQUENCE: 1
32 atggttcccg aggtgagggt cctctcctcc ttgctgggac tcgcgctgct ctggttcccc     60
33 ctggactccc acgctcgagc ccgcccagac atgttctgcc ttttccatgg gaagagatac    120
34 tcccccggcg agagctggca cccctacttg gagccacaag gcctgatgta ctgcctgcgc    180
35 tgtacctgct cagagggcgc ccatgtgagt tgttaccgcc tccactgtcc gcctgtccac    240
36 tgcccccagc ctgtgacgga gccacagcaa tgctgtccca agtgtgtgga acctcacact    300
37 ccctctggac tccgggcccc accaaagtcc tgccagcaca acgggaccat gtaccaacac    360
38 ggagagatct tcagtgccca tgagctgttc ccctcccgcc tgcccaacca gtgtgtcctc    420
39 tgcagctgca cagagggcca gatctactgc ggcctcacaa cctgccccga accaggctgc    480
40 ccagcacccc tcccrctgcc agactcctgc tgccargcct gcaaagatga ggcaagtgag    540
41 caatcggatg aagaggacag tgtgcagtcg ctccatgggg tgagacatcc tcaggatcca    600
42 tgttccagtg atgctgggag aaagagaggc ccgggcaccc cagcccccac tggcctcagc    660
43 gcccctctga gcttcatccc tcgccacttc agacccaagg gagcaggcag cacaactgtc    720
44 aagatcgtcc tgaaggagaa acataagaaa gcctgtgtgc atggcgggaa gacgtactcc    780
45 cacggggagg tgtggcaccc ggccttccgt gccttcggcc ccttgccctg catcctatgc    840
46 acctgtgagg atggccgcca ggactgccag cgtgtgacct gtcccaccga gtacccctgc    900
47 cgtcacccccg agaaagtggc tgggaagtgc tgcaagattt gcccagagga caaagcagac    960
48 cctggccaca gtgagatcag ttctaccagg tgtcccaagg caccgggccg ggtcctcgtc   1020
49 cacacatcgg tatccccaag cccagacaac ctgcgtcgct ttgccctgga acacgaggcc   1080
50 tcggacttgg tggagatcta cctctggaag ctggtraaag atgaggaaac tgaggctcag   1140
51 agaggtgaag tacctggccc aaggccacac agccagaatc ttccacttga ctcagatcaa   1200
52 gaaagtcagg aagcaagact tccagaaaga ggcacagcac ttccgactgc tcgctggccc   1260
```

RAW SEQUENCE LISTING   DATE: 03/11/2002
PATENT APPLICATION: US/09/691,343   TIME: 14:41:23

Input Set : A:\LEX-0070-USA SEQLIST.txt
Output Set: N:\CRF3\03112002\I691343.raw

53 ccacgaaggt cactggaacg tcttcctagc ccagaccctg gagctgaagg tcacggccag   1320
54 tccagacaaa gtgaccaaga cataacaaag acctaa   1356
56 <210> SEQ ID NO: 2
57 <211> LENGTH: 451
58 <212> TYPE: PRT
59 <213> ORGANISM: homo sapiens
61 <400> SEQUENCE: 2
62 Met Val Pro Glu Val Arg Val Leu Ser Ser Leu Leu Gly Leu Ala Leu
63 1   5   10   15
64 Leu Trp Phe Pro Leu Asp Ser His Ala Arg Ala Arg Pro Asp Met Phe
65   20   25   30
66 Cys Leu Phe His Gly Lys Arg Tyr Ser Pro Gly Glu Ser Trp His Pro
67   35   40   45
68 Tyr Leu Glu Pro Gln Gly Leu Met Tyr Cys Leu Arg Cys Thr Cys Ser
69   50   55   60
70 Glu Gly Ala His Val Ser Cys Tyr Arg Leu His Cys Pro Pro Val His
71 65   70   75   80
72 Cys Pro Gln Pro Val Thr Glu Pro Gln Gln Cys Cys Pro Lys Cys Val
73   85   90   95
74 Glu Pro His Thr Pro Ser Gly Leu Arg Ala Pro Pro Lys Ser Cys Gln
75   100   105   110
76 His Asn Gly Thr Met Tyr Gln His Gly Glu Ile Phe Ser Ala His Glu
77   115   120   125
78 Leu Phe Pro Ser Arg Leu Pro Asn Gln Cys Val Leu Cys Ser Cys Thr
79   130   135   140
80 Glu Gly Gln Ile Tyr Cys Gly Leu Thr Thr Cys Pro Glu Pro Gly Cys
81 145   150   155   160
82 Pro Ala Pro Leu Pro Leu Pro Asp Ser Cys Cys Gln Ala Cys Lys Asp
83   165   170   175
84 Glu Ala Ser Glu Gln Ser Asp Glu Glu Asp Ser Val Gln Ser Leu His
85   180   185   190
86 Gly Val Arg His Pro Gln Asp Pro Cys Ser Ser Asp Ala Gly Arg Lys
87   195   200   205
88 Arg Gly Pro Gly Thr Pro Ala Pro Thr Gly Leu Ser Ala Pro Leu Ser
89   210   215   220
90 Phe Ile Pro Arg His Phe Arg Pro Lys Gly Ala Gly Ser Thr Thr Val
91 225   230   235   240
92 Lys Ile Val Leu Lys Glu Lys His Lys Lys Ala Cys Val His Gly Gly
93   245   250   255
94 Lys Thr Tyr Ser His Gly Glu Val Trp His Pro Ala Phe Arg Ala Phe
95   260   265   270
96 Gly Pro Leu Pro Cys Ile Leu Cys Thr Cys Glu Asp Gly Arg Gln Asp
97   275   280   285
98 Cys Gln Arg Val Thr Cys Pro Thr Glu Tyr Pro Cys Arg His Pro Glu
99   290   295   300
100 Lys Val Ala Gly Lys Cys Cys Lys Ile Cys Pro Glu Asp Lys Ala Asp
101 305   310   315   320
102 Pro Gly His Ser Glu Ile Ser Ser Thr Arg Cys Pro Lys Ala Pro Gly
103   325   330   335

RAW SEQUENCE LISTING   DATE: 03/11/2002
PATENT APPLICATION: US/09/691,343   TIME: 14:41:23

Input Set : A:\LEX-0070-USA SEQLIST.txt
Output Set: N:\CRF3\03112002\I691343.raw

```
104 Arg Val Leu Val His Thr Ser Val Ser Pro Ser Pro Asp Asn Leu Arg
105             340                 345                 350
106 Arg Phe Ala Leu Glu His Glu Ala Ser Asp Leu Val Glu Ile Tyr Leu
107         355                 360                 365
108 Trp Lys Leu Val Lys Asp Glu Glu Thr Glu Ala Gln Arg Gly Glu Val
109     370                 375                 380
110 Pro Gly Pro Arg Pro His Ser Gln Asn Leu Pro Leu Asp Ser Asp Gln
111 385                 390                 395                 400
112 Glu Ser Gln Glu Ala Arg Leu Pro Glu Arg Gly Thr Ala Leu Pro Thr
113             405                 410                 415
114 Ala Arg Trp Pro Pro Arg Arg Ser Leu Glu Arg Leu Pro Ser Pro Asp
115             420                 425                 430
116 Pro Gly Ala Glu Gly His Gly Gln Ser Arg Gln Ser Asp Gln Asp Ile
117         435             `   440                 445
118 Thr Lys Thr
119     450
121 <210> SEQ ID NO: 3
122 <211> LENGTH: 1290
123 <212> TYPE: DNA
124 <213> ORGANISM: homo sapiens
126 <400> SEQUENCE: 3
127 atggttcccg aggtgagggt cctctcctcc ttgctgggac tcgcgctgct ctggttcccc    60
128 ctggactccc acgctcgagc ccgcccagac atgttctgcc ttttccatgg gaagagatac   120
129 tcccccggcg agagctggca cccctacttg gagccacaag gcctgatgta ctgcctgcgc   180
130 tgtacctgct cagagggcgc ccatgtgagt tgttaccgcc tccactgtcc gcctgtccac   240
131 tgcccccagc ctgtgacgga gccacagcaa tgctgtccca agtgtgtgga acctcacact   300
132 ccctctggac tccgggcccc accaaagtcc tgccagcaca acgggaccat gtaccaacac   360
133 ggagagatct tcagtgccca tgagctgttc ccctcccgcc tgcccaacca gtgtgtcctc   420
134 tgcagctgca cagagggcca gatctactgc ggcctcacaa cctgccccga accaggctgc   480
135 ccagcacccc tcccrctgcc agactcctgc tgccargcct gcaaagatga ggcaagtgag   540
136 caatcggatg aagaggacag tgtgcagtcg ctccatgggg tgagacatcc tcaggatcca   600
137 tgttccagtg atgctgggag aaagagaggc ccgggcaccc cagcccccac tggcctcagc   660
138 gcccctctga gcttcatccc tcgccacttc agacccaagg gagcaggcag cacaactgtc   720
139 aagatcgtcc tgaaggagaa acataagaaa gcctgtgtgc atggcgggaa gacgtactcc   780
140 cacggggagg tgtggcaccc ggccttccgt gccttcggcc ccttgccctg catcctatgc   840
141 acctgtgagg atggccgcca ggactgccag cgtgtgacct gtcccaccga gtacccctgc   900
142 cgtcacccng agaaagtggc tgggaagtgc tgcaagattt gcccagagga caaagcagac   960
143 cctggccaca gtgagatcag ttctaccagg tgtcccaagg caccgggccg ggtcctcgtc  1020
144 cacacatcgg tatcccccaag cccagacaac ctgcgtcgct ttgccctgga acacgaggcc  1080
145 tcggacttgg tggagatcta cctctggaag ctggtaaaag gaatcttcca cttgactcag  1140
146 atcaagaaag tcaggaagca agacttccag aaagaggcac agcacttccg actgctcgct  1200
147 ggccccacg aaggtcactg gaacgtcttc ctagcccaga ccctggagct gaaggtcacg  1260
148 gccagtccag acaaagtgac caagacataa                                    1290
150 <210> SEQ ID NO: 4
151 <211> LENGTH: 429
152 <212> TYPE: PRT
153 <213> ORGANISM: homo sapiens
155 <400> SEQUENCE: 4
156 Met Val Pro Glu Val Arg Val Leu Ser Ser Leu Leu Gly Leu Ala Leu
```

RAW SEQUENCE LISTING   DATE: 03/11/2002
PATENT APPLICATION: US/09/691,343   TIME: 14:41:23

                Input Set : A:\LEX-0070-USA SEQLIST.txt
                Output Set: N:\CRF3\03112002\I691343.raw

```
157  1                     5                   10                  15
158  Leu Trp Phe Pro Leu Asp Ser His Ala Arg Ala Arg Pro Asp Met Phe
159              20                  25                  30
160  Cys Leu Phe His Gly Lys Arg Tyr Ser Pro Gly Glu Ser Trp His Pro
161          35                  40                  45
162  Tyr Leu Glu Pro Gln Gly Leu Met Tyr Cys Leu Arg Cys Thr Cys Ser
163          50                  55                  60
164  Glu Gly Ala His Val Ser Cys Tyr Arg Leu His Cys Pro Pro Val His
165  65                  70                  75                  80
166  Cys Pro Gln Pro Val Thr Glu Pro Gln Gln Cys Cys Pro Lys Cys Val
167                  85                  90                  95
168  Glu Pro His Thr Pro Ser Gly Leu Arg Ala Pro Pro Lys Ser Cys Gln
169                  100                 105                 110
170  His Asn Gly Thr Met Tyr Gln His Gly Glu Ile Phe Ser Ala His Glu
171              115                 120                 125
172  Leu Phe Pro Ser Arg Leu Pro Asn Gln Cys Val Leu Cys Ser Cys Thr
173          130                 135                 140
174  Glu Gly Gln Ile Tyr Cys Gly Leu Thr Thr Cys Pro Glu Pro Gly Cys
175  145                 150                 155                 160
176  Pro Ala Pro Leu Pro Leu Pro Asp Ser Cys Cys Gln Ala Cys Lys Asp
177                  165                 170                 175
178  Glu Ala Ser Glu Gln Ser Asp Glu Glu Asp Ser Val Gln Ser Leu His
179                  180                 185                 190
180  Gly Val Arg His Pro Gln Asp Pro Cys Ser Ser Asp Ala Gly Arg Lys
181              195                 200                 205
182  Arg Gly Pro Gly Thr Pro Ala Pro Thr Gly Leu Ser Ala Pro Leu Ser
183          210                 215                 220
184  Phe Ile Pro Arg His Phe Arg Pro Lys Gly Ala Gly Ser Thr Thr Val
185  225                 230                 235                 240
186  Lys Ile Val Leu Lys Glu Lys His Lys Lys Ala Cys Val His Gly Gly
187                  245                 250                 255
188  Lys Thr Tyr Ser His Gly Glu Val Trp His Pro Ala Phe Arg Ala Phe
189              260                 265                 270
190  Gly Pro Leu Pro Cys Ile Leu Cys Thr Cys Glu Asp Gly Arg Gln Asp
191          275                 280                 285
192  Cys Gln Arg Val Thr Cys Pro Thr Glu Tyr Pro Cys Arg His Pro Glu
193          290                 295                 300
194  Lys Val Ala Gly Lys Cys Cys Lys Ile Cys Pro Glu Asp Lys Ala Asp
195  305                 310                 315                 320
196  Pro Gly His Ser Glu Ile Ser Ser Thr Arg Cys Pro Lys Ala Pro Gly
197              325                 330                 335
198  Arg Val Leu Val His Thr Ser Val Ser Pro Ser Pro Asp Asn Leu Arg
199              340                 345                 350
200  Arg Phe Ala Leu Glu His Glu Ala Ser Asp Leu Val Glu Ile Tyr Leu
201          355                 360                 365
202  Trp Lys Leu Val Lys Gly Ile Phe His Leu Thr Gln Ile Lys Lys Val
203          370                 375                 380
204  Arg Lys Gln Asp Phe Gln Lys Glu Ala Gln His Phe Arg Leu Leu Ala
205  385                 390                 395                 400
```

```
206 Gly Pro His Glu Gly His Trp Asn Val Phe Leu Ala Gln Thr Leu Glu
207                 405                 410                 415
208 Leu Lys Val Thr Ala Ser Pro Asp Lys Val Thr Lys Thr
209                 420                 425
211 <210> SEQ ID NO: 5
212 <211> LENGTH: 1792
213 <212> TYPE: DNA
214 <213> ORGANISM: homo sapiens
216 <400> SEQUENCE: 5
217 gccttgcccg gcgctgcgcg ctcggcagac gccggtcctc tccctgcttt ctcctcctct      60
218 ccctctcacc ttcccccttt ctttgatcgc ctctcccttc tgctggacct tccttcgtct     120
219 ctccatctct ccctcctttc cccgcgttct ctttccacct ttctcttctt cccaccttag     180
220 acctcccttc ctgccctcct ttcctgccca ccgctgcttc ctggcccttc tccgaccccg     240
221 ctctagcagc agacctcctg gggtctgtgg gttgatctgt ggcccctgtg cctccgtgtc     300
222 cttttcgtct cccttcctcc cgactccgct cccggaccag cggcctgacc ctggggaaag     360
223 gatggttccc gaggtgaggg tcctctcctc cttgctggga ctcgcgctgc tctggttccc     420
224 cctggactcc cacgctcgag cccgcccaga catgttctgc cttttccatg ggaagagata     480
225 ctccccggc gagagctggc acccctactt ggagccacaa ggcctgatgt actgcctgcg     540
226 ctgtacctgc tcagagggcg cccatgtgag ttgttaccgc ctccactgtc cgcctgtcca     600
227 ctgcccccag cctgtgacgg agccacagca atgctgtccc aagtgtgtgg aacctcacac     660
228 tccctctgga ctccgggccc caccaaagtc ctgccagcac aacgggacca tgtaccaaca     720
229 cggagagatc ttcagtgccc atgagctgtt cccctcccgc ctgcccaacc agtgtgtcct     780
230 ctgcagctgc acagagggcc agatctactg cggcctcaca acctgccccg aaccaggctg     840
231 cccagcaccc ctcccgctgc cagactcctg ctgccaagcc tgcaaagatg aggcaagtga     900
232 gcaatcggat gaagaggaca gtgtgcagtc gctccatggg gtgagacatc ctcaggatcc     960
233 atgttccagt gatgctggga gaaagagagg cccgggcacc ccagcccca ctggcctcag    1020
234 cgcccctctg agcttcatcc ctcgccactt cagacccaag ggagcaggca gcacaactgt    1080
235 caagatcgtc ctgaaggaga aacataagaa agcctgtgtg catggcggga agacgtactc    1140
236 ccacggggag gtgtggcacc cggccttccg tgccttcggc cccttgccct gcatcctatg    1200
237 cacctgtgag gatggccgcc aggactgcca gcgtgtgacc tgtcccaccg agtacccctg    1260
238 ccgtcacccc gagaaagtgg ctgggaagtg ctgcaagatt gcccagagg acaaagcaga    1320
239 ccctggccac agtgagatca gttctaccag gtgtcccaag gcaccgggcc gggtcctcgt    1380
240 ccacacatcg gtatccccaa gcccagacaa cctgcgtcgc tttgccctgg aacacgaggc    1440
241 ctcggacttg gtggagatct acctctggaa gctggtaaaa gatgaggaaa ctgaggctca    1500
242 gagaggtgaa gtacctggcc caaggccaca cagccagaat cttccacttg actcagatca    1560
243 agaaagtcag gaagcaagac ttccagaaag aggcacagca cttccgactg ctcgctggcc    1620
244 cccacgaagg tcactggaac gtcttcctag cccagaccct ggagctgaag gtcacggcca    1680
245 gtccagacaa agtgaccaag acataacaaa gacctaacag ttgcagatat gagctgtata    1740
246 attgttgtta ttatatatta ataataaga agttgcatta ccctcaaaaa aa             1792
249 <210> SEQ ID NO: 6
250 <211> LENGTH: 918
251 <212> TYPE: DNA
252 <213> ORGANISM: Homo sapiens
254 <400> SEQUENCE: 6
255  atgagcctct tcgggcttct cctgctgaca tctgccctgg ccggccagag acaggggact      60
256  caggcggaat ccaacctgag tagtaaattc cagttttcca gcaacaagga acagaacgga     120
257  gtacaagatc ctcagcatga gagaattatt actgtgtcta ctaatggaag tattcacagc     180
258  ccaaggtttc ctcatactta tccaagaaat acggtcttgg tatggagatt agtagcagta     240
259  gaggaaaatg tatggataca acttacgttt gatgaaagat ttgggcttga agacccagaa     300
```

VERIFICATION SUMMARY   DATE: 03/11/2002
PATENT APPLICATION: US/09/691,343   TIME: 14:41:24

Input Set : **A:\LEX-0070-USA SEQLIST.txt**
Output Set: **N:\CRF3\03112002\I691343.raw**

L:16 M:270 C: Current Application Number differs, Replaced Current Application No
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date